

Legionella Testing at UPHL

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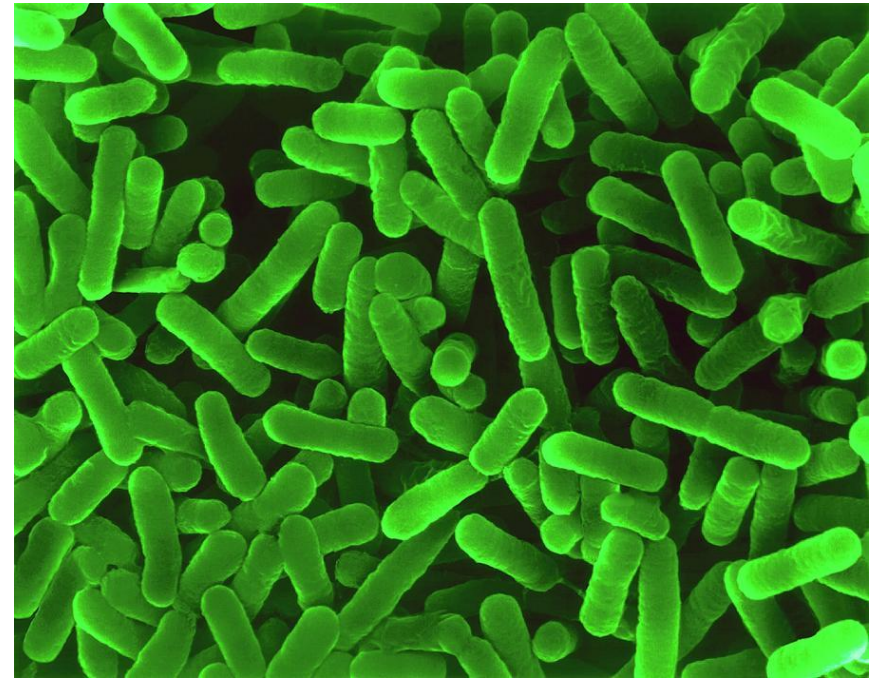
- What is Legionella
- Sampling / Collection Requirements
- SM 9260J- Testing, Reporting, Quality Assurance
- Legiolert- Testing, Reporting, Quality Assurance
- Conclusion



WHAT IS LEGIONELLA



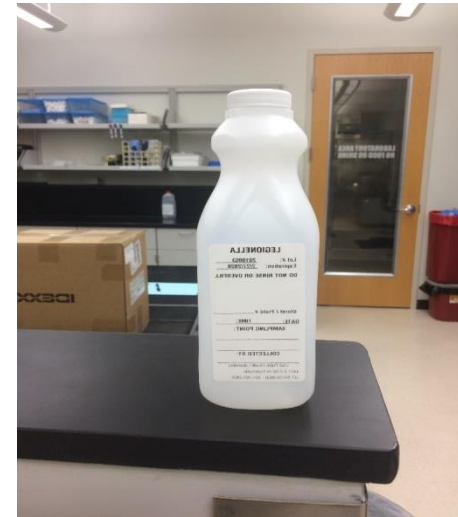
- Legionella is a rod-shaped bacteria
- Grows in water
- Causes Legionnaires disease
- Transmitted Airborne



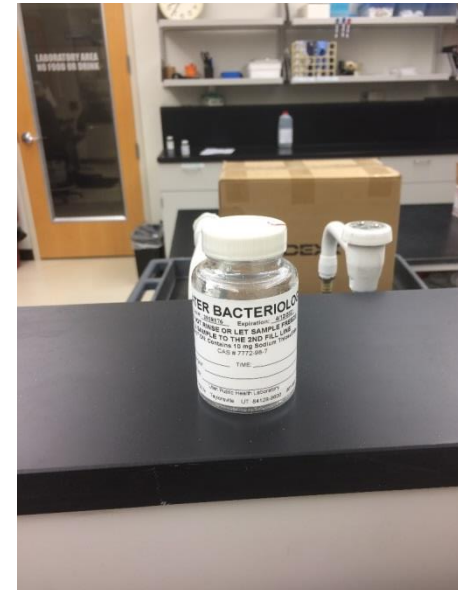
Sampling/Collection Requirements



- Sample Source
- Collection bottles.
- Volume Requirements.
- When Should the samples be dropped at the lab.
- Holding time.
- Rejected Samples.



Collection
Bottle - SM
9260 J



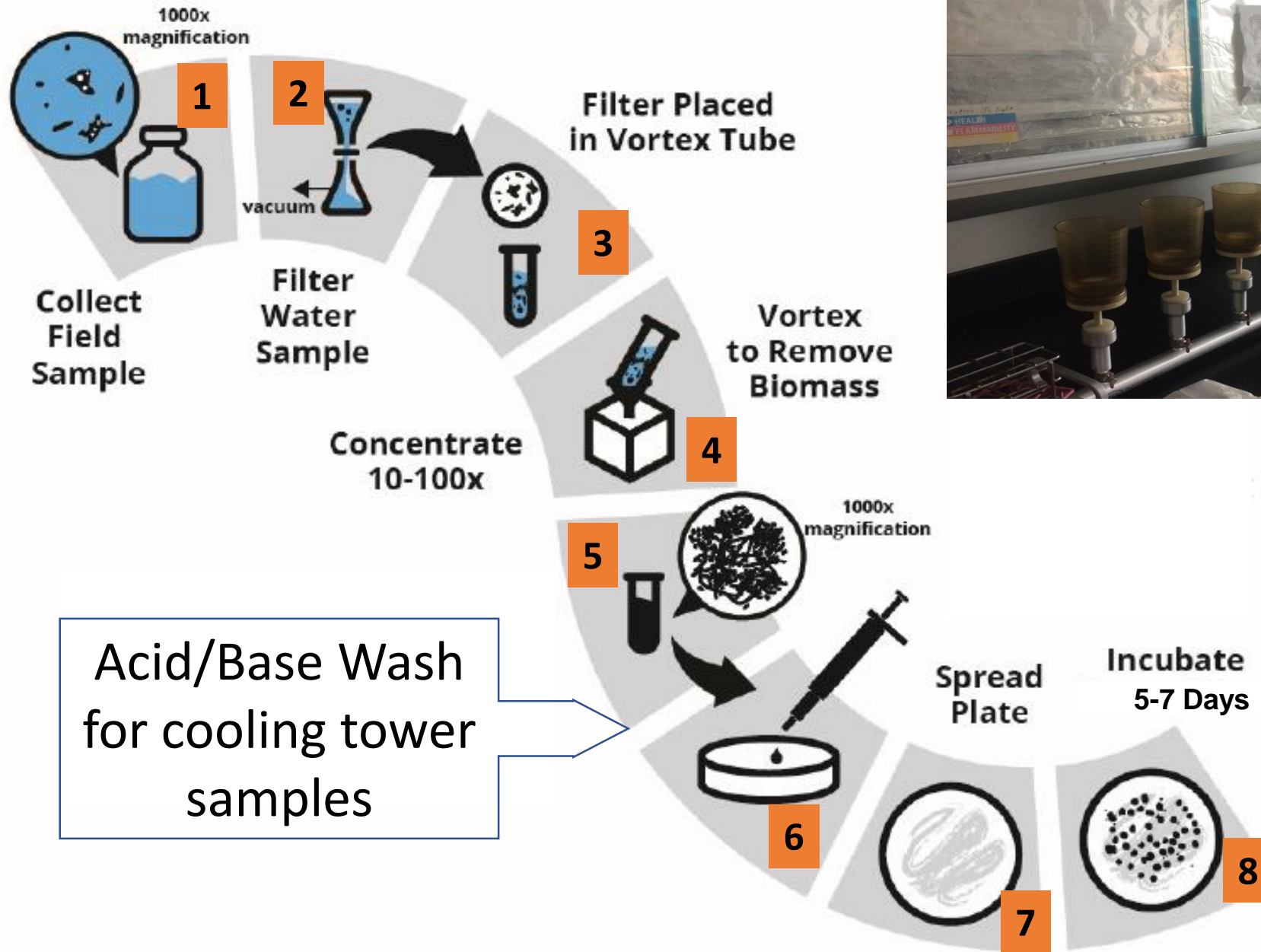
Collection
Bottle -
Legiolert



SM 9260J- How do we test for Legionella?

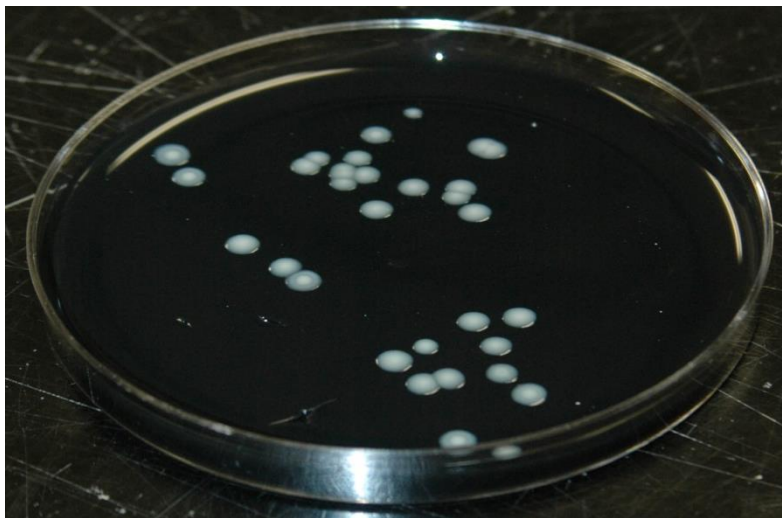


- SM 9260 J

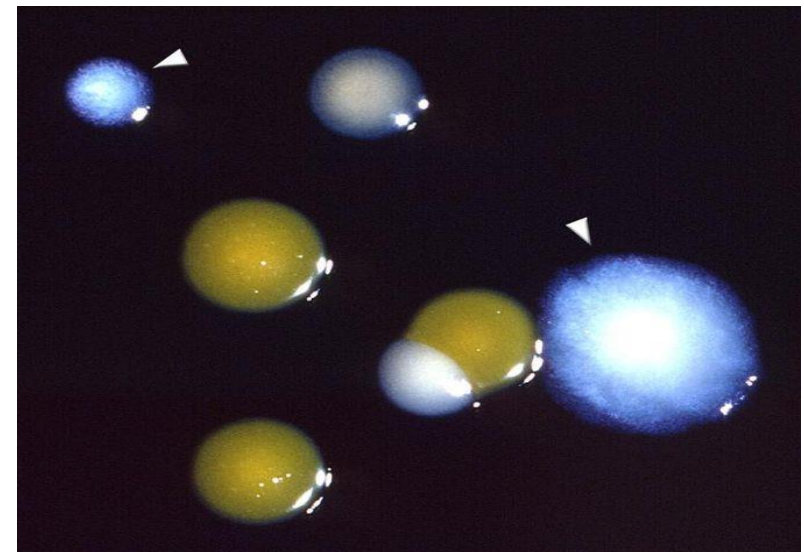




- SM 9260 J
- Following 3-7 days of incubation, colonies suspected to be Legionella can be subbed BCYE agars for conformation.
- Colonies suspected to be Legionella are tested by latex agglutination. Report unit is CFU/mL.



Legionella Pneumophila
serogroup 1 on MWY Agar.



Legionella Colonies-ground-glass
appearance





- Confidence in results of Standard Method 9260 J
- Per analysis batch, Quality Control blanks are analyzed at the beginning and end of the filtration series as well as after 20 samples.
- Positive Control is analyzed every new reagent batch is made.
- CDC PT samples are analyzed every six months (six samples), total 12 a year.



How do we test for Legionella?



- Legiolert Method



Step 1: Dilution Prep



Step 2: Reagent Prep



**Step 3:
Tray Prep**



**Step 4:
Sealer
Prep**



- Legiolert Method
- Read results: Any brown and/or turbid wells are positive for *Legionella pneumophila*.
- Quanti-Tray/Legiolert provides Most Probable Number (MPN) results up to 2,272 per 100 mL sample.





- Confidence in results of Legiolert
- Per analysis batch, Quality Control blanks are analyzed at the beginning and end.
- Positive Control is analyzed every new reagent lot from IDEXX.



Certificate Of Proficiency



CERTIFICATE OF PROFICIENCY

ELITE Program

Unified State Laboratories, Utah Department of Health

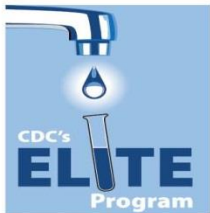
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United States of America

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Issued by:

Environmental *Legionella* Isolation Techniques Evaluation
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Coordinating Center for Infectious Diseases
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THANK YOU!



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QUESTIONS?

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Utah Public Health
Laboratory

